



**STATE OF TENNESSEE
DEPARTMENT OF HEALTH
ENVIRONMENTAL LABORATORIES**

TDH: Lab Services JRL
Lab Services - Jackson Regional Lab
Jackson, TN 38301
731-426-0686

TDH: Lab Services KRL
Lab Services - Knoxville Regional Lab
Knoxville, TN 37920
865-549-5201

TDH: Lab Services NCL
Lab Services - Nashville Central Lab
Nashville, TN 37243
615-262-6300

Sent To: Greg Denton
TDEC-WPC
6th Floor, L & C Tower Annex
401 Church Street
Nashville, TN 37243-1534

Michael Atchley
TDEC-WPC
Knoxville FO
3711 Middlebrook Pike
Knoxville, TN 37921

Lab ID: K00003121
Knoxville Regional Laboratory

Sampling Agency: TDEC: Division of Water Pollution Control

Billing Code: 327.34-20

This is to certify that the following results were determined using good laboratory practices and in accordance with federal or state approved methodologies.


Analytical Supervisor

Lab-Sample Number: K00003121001
Project Name: TVA-Ash Spill
Sample Description: Emory River mile 12.1
Sampler Project Name: TVA Ash Spill
Project Site No.: 1
Station No.: EMORY012.1RO
Date/Time Collected: 11/17/2009 11:45
Sampler's Name: Geoff Klein
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date: 11/27/2009
Date/Time Received: 11/17/2009 13:45
Received By: Ken Hitchman

Field Determinations
pH: 7.86 pH Units
Chlorine, residual:
Conductivity: 49 uMHO
Temperature: 11.09
Dissolved Oxygen: 10.47 mg/L
Other:
Flow: CFS

TEST: Alkalinity, Total		METHOD: EPA 310.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Alkalinity	17	mg/L	3.8	10	M Chen	11/24/2009

TEST: Hardness, Calcium		METHOD: SM 3500-Ca D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Calcium hardness	17	mg/L	0.7	1	M Chen	11/23/2009

TEST: Residue, Settleable		METHOD: SM 2540F				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Settleable Residue	U	ml/L	0.10	0.10	P Leathers	11/18/2009

TEST: Residue, Suspended		METHOD: SM 2540D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Suspended Solids	U	mg/L	10	10	A Peebles	11/20/2009

J - Estimated value between MDL and MQL
 MDL - Method Detection Limit
 MQL - Method Quantitation Limit
 U - Undetected

Lab-Sample Number: K00003121002
Project Name: TVA-Ash Spill
Sample Description: Emory River mile 2.1
Sampler Project Name: TVA Ash Spill
Project Site No.: 2
Station No.: EMORY002.1RO
Date/Time Collected: 11/17/2009 09:30
Sampler's Name: Geoff Klein
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date: 11/27/2009
Date/Time Received: 11/17/2009 13:45
Received By: Ken Hitchman

Field Determinations
pH: 8.07 pH Units
Chlorine, residual:
Conductivity: 53 uMHO
Temperature: 11.62
Dissolved Oxygen: 10.80 mg/L
Other:
Flow: CFS

TEST: Alkalinity, Total		METHOD: EPA 310.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Alkalinity	18	mg/L	3.8	10	M Chen	11/24/2009

TEST: Hardness, Calcium		METHOD: SM 3500-Ca D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Calcium hardness	17	mg/L	0.7	1	M Chen	11/23/2009

TEST: Residue, Settleable		METHOD: SM 2540F				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Settleable Residue	U	ml/L	0.10	0.10	P Leathers	11/18/2009

TEST: Residue, Suspended		METHOD: SM 2540D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Suspended Solids	10	mg/L	10	10	A Peeples	11/20/2009

J - Estimated value between MDL and MQL
MDL - Method Detection Limit
MQL - Method Quantitation Limit
U - Undetected

Lab-Sample Number:	K00003121003	Field Determinations	
Project Name:	TVA-Ash Spill	pH:	8.01 pH Units
Sample Description:	Approx 100' downstream from middle dredge pc	Chlorine, residual:	
Sampler Project Name:	TVA Ash Spill	Conductivity:	54 uMHO
Project Site No.:	2A	Temperature:	11.49
Station No.:	Dredge Plume	Dissolved Oxygen:	10.99 mg/L
Date/Time Collected:	11/17/2009 09:40	Other:	
Sampler's Name:	Geoff Klein	Flow:	CFS
County:	ROANE - 73		
Sample Matrix:	Water		
EFO:	Knoxville		
Sampling Agency:	TDEC-WPC		
Billing Code:	327.34-20		
Send Report To:	TDEC-WPC		
Agency Invoiced:	TDEC-WPC		
Priority Date:	11/27/2009		
Date/Time Received:	11/17/2009 13:45		
Received By:	Ken Hitchman		

TEST: Alkalinity, Total		METHOD: EPA 310.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Alkalinity	19	mg/L	3.8	10	M Chen	11/24/2009

TEST: Hardness, Calcium		METHOD: SM 3500-Ca D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Calcium hardness	17	mg/L	0.7	1	M Chen	11/23/2009

TEST: Residue, Settleable		METHOD: SM 2540F				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Settleable Residue	0.1	ml/L	0.10	0.10	P Leathers	11/18/2009

TEST: Residue, Suspended		METHOD: SM 2540D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Suspended Solids	47	mg/L	10	10	A Peebles	11/20/2009

J - Estimated value between MDL and MQL
MDL - Method Detection Limit
MQL - Method Quantitation Limit
U - Undetected

Lab-Sample Number: K00003121004
Project Name: TVA-Ash Spill
Sample Description: Emory River mile 1.9 at underwater weir
Sampler Project Name: TVA Ash Spill
Project Site No.: 2B
Station No.: EMORY001.9RO
Date/Time Collected: 11/17/2009 09:55
Sampler's Name: Geoff Klein
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date: 11/27/2009
Date/Time Received: 11/17/2009 13:45
Received By: Ken Hitchman

Field Determinations
pH: 7.76 pH Units
Chlorine, residual:
Conductivity: 58 uMHO
Temperature: 11.54
Dissolved Oxygen: 11.11 mg/L
Other:
Flow: CFS

TEST: Alkalinity, Total		METHOD: EPA 310.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Alkalinity	22	mg/L	3.8	10	M Chen	11/24/2009

TEST: Hardness, Calcium		METHOD: SM 3500-Ca D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Calcium hardness	20	mg/L	0.7	1	M Chen	11/23/2009

TEST: Residue, Settleable		METHOD: SM 2540F				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Settleable Residue	0.1	ml/L	0.10	0.10	P Leathers	11/18/2009

TEST: Residue, Suspended		METHOD: SM 2540D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Suspended Solids	33	mg/L	10	10	A Peeples	11/20/2009

J - Estimated value between MDL and MQL
MDL - Method Detection Limit
MQL - Method Quantitation Limit
U - Undetected

Lab-Sample Number: K00003121005
Project Name: TVA-Ash Spill
Sample Description: Emory River mile 1.7
Sampler Project Name: TVA Ash Spill
Project Site No.: 3
Station No.: EMORY001.7RO
Date/Time Collected: 11/17/2009 10:00
Sampler's Name: Geoff Klein
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date: 11/27/2009
Date/Time Received: 11/17/2009 13:45
Received By: Ken Hitchman

Field Determinations
pH: 7.47 pH Units
Chlorine, residual:
Conductivity: 111 uMHO
Temperature: 12.50
Dissolved Oxygen: 11.16 mg/L
Other:
Flow: CFS

TEST: Alkalinity, Total		METHOD: EPA 310.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Alkalinity	42	mg/L	3.8	10	M Chen	11/24/2009

TEST: Hardness, Calcium		METHOD: SM 3500-Ca D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Calcium hardness	32	mg/L	0.7	1	M Chen	11/23/2009

TEST: Residue, Settleable		METHOD: SM 2540F				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Settleable Residue	U	ml/L	0.10	0.10	P Leathers	11/18/2009

TEST: Residue, Suspended		METHOD: SM 2540D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Suspended Solids	12	mg/L	10	10	A Peebles	11/20/2009

J - Estimated value between MDL and MQL
MDL - Method Detection Limit
MQL - Method Quantitation Limit
U - Undetected

Lab-Sample Number: K00003121006
Project Name: TVA-Ash Spill
Sample Description: Emory River mile 0.1
Sampler Project Name: TVA Ash Spill
Project Site No.: 4
Station No.: EMORY000.1RO
Date/Time Collected: 11/17/2009 10:22
Sampler's Name: Geoff Klein
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date: 11/27/2009
Date/Time Received: 11/17/2009 13:45
Received By: Ken Hitchman

Field Determinations
pH: 7.68 pH Units
Chlorine, residual:
Conductivity: 233 uMHO
Temperature: 14.02
Dissolved Oxygen: 9.67 mg/L
Other:
Flow: CFS

TEST: Alkalinity, Total		METHOD: EPA 310.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Alkalinity	120	mg/L	3.8	10	M Chen	11/24/2009

TEST: Hardness, Calcium		METHOD: SM 3500-Ca D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Calcium hardness	92	mg/L	0.7	1	M Chen	11/23/2009

TEST: Residue, Settleable		METHOD: SM 2540F				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Settleable Residue	U	ml/L	0.10	0.10	P Leathers	11/18/2009

TEST: Residue, Suspended		METHOD: SM 2540D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Suspended Solids	11	mg/L	10	10	A Peebles	11/20/2009

J - Estimated value between MDL and MQL
MDL - Method Detection Limit
MQL - Method Quantitation Limit
U - Undetected

Lab-Sample Number: K00003121007
Project Name: TVA-Ash Spill
Sample Description: Clinch River mile 2.3
Sampler Project Name: TVA Ash Spill
Project Site No.: 5
Station No.: CLINC002.3RO
Date/Time Collected: 11/17/2009 10:50
Sampler's Name: Geoff Klein
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date: 11/27/2009
Date/Time Received: 11/17/2009 13:45
Received By: Ken Hitchman

Field Determinations
pH: 7.55 pH Units
Chlorine, residual:
Conductivity: 242 uMHO
Temperature: 14.17
Dissolved Oxygen: 9.97 mg/L
Other:
Flow: CFS

TEST: Alkalinity, Total		METHOD: EPA 310.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Alkalinity	130	mg/L	3.8	10	M Chen	11/24/2009

TEST: Hardness, Calcium		METHOD: SM 3500-Ca D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Calcium hardness	96	mg/L	0.7	1	M Chen	11/23/2009

TEST: Residue, Settleable		METHOD: SM 2540F				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Settleable Residue	U	ml/L	0.10	0.10	P Leathers	11/18/2009

TEST: Residue, Suspended		METHOD: SM 2540D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Suspended Solids	U	mg/L	10	10	A Peebles	11/20/2009

J - Estimated value between MDL and MQL
MDL - Method Detection Limit
MQL - Method Quantitation Limit
U - Undetected

Lab-Sample Number: K00003121008
Project Name: TVA-Ash Spill
Sample Description: Clinch River TVA Discharge Point
Sampler Project Name: TVA Ash Spill
Project Site No.: 5A
Station No.: KingAshOutF2
Date/Time Collected: 11/17/2009 11:05
Sampler's Name: Geoff Klein
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date: 11/27/2009
Date/Time Received: 11/17/2009 13:45
Received By: Ken Hitchman

Field Determinations
pH: 7.77 pH Units
Chlorine, residual:
Conductivity: 78 uMHO
Temperature: 11.91
Dissolved Oxygen: 10.63 mg/L
Other:
Flow: CFS

TEST: Alkalinity, Total		METHOD: EPA 310.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Alkalinity	32	mg/L	3.8	10	M Chen	11/24/2009

TEST: Hardness, Calcium		METHOD: SM 3500-Ca D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Calcium hardness	31	mg/L	0.7	1	M Chen	11/23/2009

TEST: Residue, Settleable		METHOD: SM 2540F				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Settleable Residue	U	ml/L	0.10	0.10	P Leathers	11/18/2009

TEST: Residue, Suspended		METHOD: SM 2540D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Suspended Solids	10	mg/L	10	10	A Peebles	11/20/2009

J - Estimated value between MDL and MQL

MDL - Method Detection Limit

MQL - Method Quantitation Limit

U - Undetected

Lab-Sample Number:	K00003121009	Field Determinations	
Project Name:	TVA-Ash Spill	pH:	7.52 pH Units
Sample Description:	Clinch River mile 4.5 near Sugar Grove Valley R	Chlorine, residual:	
Sampler Project Name:	TVA Ash Spill	Conductivity:	253 uMHO
Project Site No.:	6	Temperature:	14.29
Station No.:	CLINC004.5RO	Dissolved Oxygen:	9.73 mg/L
Date/Time Collected:	11/17/2009 10:30	Other:	
Sampler's Name:	Geoff Klein	Flow:	CFS
County:	ROANE - 73		
Sample Matrix:	Water		
EFO:	Knoxville		
Sampling Agency:	TDEC-WPC		
Billing Code:	327.34-20		
Send Report To:	TDEC-WPC		
Agency Invoiced:	TDEC-WPC		
Priority Date:	11/27/2009		
Date/Time Received:	11/17/2009 13:45		
Received By:	Ken Hitchman		

TEST: Alkalinity, Total		METHOD: EPA 310.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Alkalinity	130	mg/L	3.8	10	M Chen	11/24/2009

TEST: Hardness, Calcium		METHOD: SM 3500-Ca D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Calcium hardness	96	mg/L	0.7	1	M Chen	11/23/2009

TEST: Residue, Settleable		METHOD: SM 2540F				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Settleable Residue	U	ml/L	0.10	0.10	P Leathers	11/18/2009

TEST: Residue, Suspended		METHOD: SM 2540D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Suspended Solids	U	mg/L	10	10	A Peebles	11/20/2009

J - Estimated value between MDL and MQL

MDL - Method Detection Limit

MQL - Method Quantitation Limit

U - Undetected



**STATE OF TENNESSEE
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Knoxville, TN 37921

Lab ID: K00003121
Knoxville Regional Laboratory

Sampling Agency: TDEC: Division of Water Pollution Control

Billing Code: 327.34-20

This is to certify that the following results were determined using
good laboratory practices and in accordance with federal or state
approved methodologies.

Analytical Supervisor

Lab-Sample Number: K00003121001
Project Name: TVA-Ash Spill
Sample Description: Emory River mile 12.1
Sampler Project Name: TVA Ash Spill
Project Site No.: 1
Station No.: EMORY012.1RO
Date/Time Collected: 11/17/2009 11:45
Sampler's Name: Geoff Klein
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date: 11/27/2009
Date/Time Received: 11/17/2009 13:45
Received By: Ken Hitchman

Field Determinations
pH: 7.86 pH Units
Chlorine, residual:
Conductivity: 49 uMHO
Temperature: 11.09
Dissolved Oxygen: 10.47 mg/L
Other:
Flow: CFS

TEST: Digestion Metals		METHOD: EPA 200.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Digestion Metals	11/19/2009				A Wilson	11/19/2009

TEST: ICP		METHOD: EPA 200.7				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Iron	160	µg/L	2.9	10	A Wilson	11/19/2009

TEST: ICP-MS		METHOD: EPA 200.8				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Aluminum	47	µg/L	6.4	10	M Pattanayek	11/19/2009
Antimony	U	µg/L	0.33	1	M Pattanayek	11/19/2009
Arsenic	U	µg/L	0.93	5	M Pattanayek	11/19/2009
Barium	22	µg/L	2.5	5	M Pattanayek	11/19/2009
Beryllium	U	µg/L	0.11	1	M Pattanayek	11/19/2009
Cadmium	U	µg/L	0.41	1	M Pattanayek	11/19/2009
Chromium	U	µg/L	2.0	5	M Pattanayek	11/19/2009
Cobalt	0.19J	µg/L	0.04	1	M Pattanayek	11/19/2009
Copper	U	µg/L	0.38	1	M Pattanayek	11/19/2009
Lead	U	µg/L	0.10	1	M Pattanayek	11/19/2009
Manganese	48	µg/L	0.42	1	M Pattanayek	11/19/2009
Nickel	0.99J	µg/L	0.25	1	M Pattanayek	11/19/2009
Selenium	U	µg/L	1.3	5	M Pattanayek	11/19/2009
Silver	U	µg/L	0.03	0.25	M Pattanayek	11/19/2009
Thallium	0.06J	µg/L	0.03	1	M Pattanayek	11/19/2009
Vanadium	U	µg/L	3.4	5	M Pattanayek	11/19/2009
Zinc	2.9J	µg/L	1.9	5	M Pattanayek	11/19/2009

Lab-Sample Number: K00003121001
Project Name: TVA-Ash Spill
Sample Description: Emory River mile 12.1
Sampler Project Name: TVA Ash Spill
Project Site No.: 1
Station No.: EMORY012.1RO
Date/Time Collected: 11/17/2009 11:45
Sampler's Name: Geoff Klein
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date: 11/27/2009
Date/Time Received: 11/17/2009 13:45
Received By: Ken Hitchman

Field Determinations
pH: 7.86 pH Units
Chlorine, residual:
Conductivity: 49 uMHO
Temperature: 11.09
Dissolved Oxygen: 10.47 mg/L
Other:
Flow: CFS

TEST: Mercury		METHOD: EPA 245.1				
ANALYTE	RESULT	UNITS	MDL	MLQ	ANALYZED BY:	DATE
Mercury	U	µg/L	0.029	0.2	A Bass	11/24/2009

J - Estimated value between MDL and MLQ

MDL - Method Detection Limit

MLQ - Method Quantitation Limit

U - Undetected

Lab-Sample Number: K00003121002
Project Name: TVA-Ash Spill
Sample Description: Emory River mile 2.1
Sampler Project Name: TVA Ash Spill
Project Site No.: 2
Station No.: EMORY002.1RO
Date/Time Collected: 11/17/2009 09:30
Sampler's Name: Geoff Klein
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date: 11/27/2009
Date/Time Received: 11/17/2009 13:45
Received By: Ken Hitchman

Field Determinations
pH: 8.07 pH Units
Chlorine, residual:
Conductivity: 53 uMHO
Temperature: 11.62
Dissolved Oxygen: 10.80 mg/L
Other:
Flow: CFS

TEST: Digestion Metals		METHOD: EPA 200.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Digestion Metals	11/19/2009				A Wilson	11/19/2009

TEST: ICP		METHOD: EPA 200.7				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Iron	590	µg/L	2.9	10	A Wilson	11/19/2009

TEST: ICP-MS		METHOD: EPA 200.8				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Aluminum	210	µg/L	6.4	10	M Pattanayek	11/19/2009
Antimony	U	µg/L	0.33	1	M Pattanayek	11/19/2009
Arsenic	U	µg/L	0.93	5	M Pattanayek	11/19/2009
Barium	26	µg/L	2.5	5	M Pattanayek	11/19/2009
Beryllium	U	µg/L	0.11	1	M Pattanayek	11/19/2009
Cadmium	U	µg/L	0.41	1	M Pattanayek	11/19/2009
Chromium	U	µg/L	2.0	5	M Pattanayek	11/19/2009
Cobalt	0.30J	µg/L	0.04	1	M Pattanayek	11/19/2009
Copper	0.48J	µg/L	0.38	1	M Pattanayek	11/19/2009
Lead	0.48J	µg/L	0.10	1	M Pattanayek	11/19/2009
Manganese	61	µg/L	0.42	1	M Pattanayek	11/19/2009
Nickel	1.2	µg/L	0.25	1	M Pattanayek	11/19/2009
Selenium	U	µg/L	1.3	5	M Pattanayek	11/19/2009
Silver	U	µg/L	0.03	0.25	M Pattanayek	11/19/2009
Thallium	0.05J	µg/L	0.03	1	M Pattanayek	11/19/2009
Vanadium	U	µg/L	3.4	5	M Pattanayek	11/19/2009
Zinc	7.3	µg/L	1.9	5	M Pattanayek	11/19/2009

Lab-Sample Number: K00003121002
Project Name: TVA-Ash Spill
Sample Description: Emory River mile 2.1
Sampler Project Name: TVA Ash Spill
Project Site No.: 2
Station No.: EMORY002.1RO
Date/Time Collected: 11/17/2009 09:30
Sampler's Name: Geoff Klein
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date: 11/27/2009
Date/Time Received: 11/17/2009 13:45
Received By: Ken Hitchman

Field Determinations
pH: 8.07 pH Units
Chlorine, residual:
Conductivity: 53 uMHO
Temperature: 11.62
Dissolved Oxygen: 10.80 mg/L
Other:
Flow: CFS

TEST: Mercury		METHOD: EPA 245.1				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Mercury	U	µg/L	0.029	0.2	A Bass	11/24/2009

J - Estimated value between MDL and MQL
MDL - Method Detection Limit
MQL - Method Quantitation Limit
U - Undetected

Lab-Sample Number:	K00003121003	Field Determinations	
Project Name:	TVA-Ash Spill	pH:	8.01 pH Units
Sample Description:	Approx 100' downstream from middle dredge pc	Chlorine, residual:	
Sampler Project Name:	TVA Ash Spill	Conductivity:	54 uMHO
Project Site No.:	2A	Temperature:	11.49
Station No.:	Dredge Plume	Dissolved Oxygen:	10.99 mg/L
Date/Time Collected:	11/17/2009 09:40	Other:	
Sampler's Name:	Geoff Klein	Flow:	CFS
County:	ROANE - 73		
Sample Matrix:	Water		
EFO:	Knoxville		
Sampling Agency:	TDEC-WPC		
Billing Code:	327.34-20		
Send Report To:	TDEC-WPC		
Agency Invoiced:	TDEC-WPC		
Priority Date:	11/27/2009		
Date/Time Received:	11/17/2009 13:45		
Received By:	Ken Hitchman		

TEST: Digestion Metals		METHOD: EPA 200.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Digestion Metals	11/19/2009				A Wilson	11/19/2009

TEST: ICP		METHOD: EPA 200.7				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Iron	640	µg/L	2.9	10	A Wilson	11/19/2009

TEST: ICP-MS		METHOD: EPA 200.8				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Aluminum	680	µg/L	6.4	10	M Pattanayek	11/19/2009
Antimony	U	µg/L	0.33	1	M Pattanayek	11/19/2009
Arsenic	3.3J	µg/L	0.93	5	M Pattanayek	11/19/2009
Barium	37	µg/L	2.5	5	M Pattanayek	11/19/2009
Beryllium	0.11J	µg/L	0.11	1	M Pattanayek	11/19/2009
Cadmium	U	µg/L	0.41	1	M Pattanayek	11/19/2009
Chromium	U	µg/L	2.0	5	M Pattanayek	11/19/2009
Cobalt	0.62J	µg/L	0.04	1	M Pattanayek	11/19/2009
Copper	1.3	µg/L	0.38	1	M Pattanayek	11/19/2009
Lead	1.0	µg/L	0.10	1	M Pattanayek	11/19/2009
Manganese	83	µg/L	0.42	1	M Pattanayek	11/19/2009
Nickel	1.7	µg/L	0.25	1	M Pattanayek	11/19/2009
Selenium	U	µg/L	1.3	5	M Pattanayek	11/19/2009
Silver	U	µg/L	0.03	0.25	M Pattanayek	11/19/2009
Thallium	0.11J	µg/L	0.03	1	M Pattanayek	11/19/2009
Vanadium	U	µg/L	3.4	5	M Pattanayek	11/19/2009
Zinc	5.7	µg/L	1.9	5	M Pattanayek	11/19/2009

Lab-Sample Number:	K00003121003	Field Determinations	
Project Name:	TVA-Ash Spill	pH:	8.01 pH Units
Sample Description:	Approx 100' downstream from middle dredge pc	Chlorine, residual:	
Sampler Project Name:	TVA Ash Spill	Conductivity:	54 uMHO
Project Site No.:	2A	Temperature:	11.49
Station No.:	Dredge Plume	Dissolved Oxygen:	10.99 mg/L
Date/Time Collected:	11/17/2009 09:40	Other:	
Sampler's Name:	Geoff Klein	Flow:	CFS
County:	ROANE - 73		
Sample Matrix:	Water		
EFO:	Knoxville		
Sampling Agency:	TDEC-WPC		
Billing Code:	327.34-20		
Send Report To:	TDEC-WPC		
Agency Invoiced:	TDEC-WPC		
Priority Date:	11/27/2009		
Date/Time Received:	11/17/2009 13:45		
Received By:	Ken Hitchman		

TEST: Mercury		METHOD: EPA 245.1				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Mercury	U	µg/L	0.029	0.2	A Bass	11/24/2009

J - Estimated value between MDL and MQL
 MDL - Method Detection Limit
 MQL - Method Quantitation Limit
 U - Undetected

Lab-Sample Number: K00003121004
Project Name: TVA-Ash Spill
Sample Description: Emory River mile 1.9 at underwater weir
Sampler Project Name: TVA Ash Spill
Project Site No.: 2B
Station No.: EMORY001.9RO
Date/Time Collected: 11/17/2009 09:55
Sampler's Name: Geoff Klein
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date: 11/27/2009
Date/Time Received: 11/17/2009 13:45
Received By: Ken Hitchman

Field Determinations
pH: 7.76 pH Units
Chlorine, residual:
Conductivity: 58 uMHO
Temperature: 11.54
Dissolved Oxygen: 11.11 mg/L
Other:
Flow: CFS

TEST: Digestion Metals			METHOD: EPA 200.2			
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Digestion Metals	11/19/2009				A Wilson	11/19/2009

TEST: ICP			METHOD: EPA 200.7			
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Iron	960	µg/L	2.9	10	A Wilson	11/19/2009

TEST: ICP-MS			METHOD: EPA 200.8			
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Aluminum	1200	µg/L	12.8	20	M Pattanayek	11/19/2009
Antimony	U	µg/L	0.33	1	M Pattanayek	11/19/2009
Arsenic	4.5J	µg/L	0.93	5	M Pattanayek	11/19/2009
Barium	51	µg/L	2.5	5	M Pattanayek	11/19/2009
Beryllium	0.22J	µg/L	0.11	1	M Pattanayek	11/19/2009
Cadmium	U	µg/L	0.41	1	M Pattanayek	11/19/2009
Chromium	2.0J	µg/L	2.0	5	M Pattanayek	11/19/2009
Cobalt	1.0	µg/L	0.04	1	M Pattanayek	11/19/2009
Copper	2.8	µg/L	0.38	1	M Pattanayek	11/19/2009
Lead	2.0	µg/L	0.10	1	M Pattanayek	11/19/2009
Manganese	95	µg/L	0.42	1	M Pattanayek	11/19/2009
Nickel	2.8	µg/L	0.25	1	M Pattanayek	11/19/2009
Selenium	U	µg/L	1.3	5	M Pattanayek	11/19/2009
Silver	U	µg/L	0.03	0.25	M Pattanayek	11/19/2009
Thallium	0.14J	µg/L	0.03	1	M Pattanayek	11/19/2009
Vanadium	4.6J	µg/L	3.4	5	M Pattanayek	11/19/2009
Zinc	7.0	µg/L	1.9	5	M Pattanayek	11/19/2009

Lab-Sample Number: K00003121004
Project Name: TVA-Ash Spill
Sample Description: Emory River mile 1.9 at underwater weir
Sampler Project Name: TVA Ash Spill
Project Site No.: 2B
Station No.: EMORY001.9RO
Date/Time Collected: 11/17/2009 09:55
Sampler's Name: Geoff Klein
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date: 11/27/2009
Date/Time Received: 11/17/2009 13:45
Received By: Ken Hitchman

Field Determinations
pH: 7.76 pH Units
Chlorine, residual:
Conductivity: 58 uMHO
Temperature: 11.54
Dissolved Oxygen: 11.11 mg/L
Other:
Flow: CFS

TEST: Mercury		METHOD: EPA 245.1				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Mercury	U	µg/L	0.029	0.2	A Bass	11/24/2009

J - Estimated value between MDL and MQL

MDL - Method Detection Limit

MQL - Method Quantitation Limit

U - Undetected

Lab-Sample Number: K00003121005
Project Name: TVA-Ash Spill
Sample Description: Emory River mile 1.7
Sampler Project Name: TVA Ash Spill
Project Site No.: 3
Station No.: EMORY001.7RO
Date/Time Collected: 11/17/2009 10:00
Sampler's Name: Geoff Klein
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date: 11/27/2009
Date/Time Received: 11/17/2009 13:45
Received By: Ken Hitchman

Field Determinations
pH: 7.47 pH Units
Chlorine, residual:
Conductivity: 111 uMHO
Temperature: 12.50
Dissolved Oxygen: 11.16 mg/L
Other:
Flow: CFS

TEST: Digestion Metals			METHOD: EPA 200.2			
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Digestion Metals	11/19/2009				A Wilson	11/19/2009

TEST: ICP			METHOD: EPA 200.7			
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Iron	340	µg/L	2.9	10	A Wilson	11/19/2009

TEST: ICP-MS			METHOD: EPA 200.8			
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Aluminum	270	µg/L	6.4	10	M Pattanayek	11/19/2009
Antimony	U	µg/L	0.33	1	M Pattanayek	11/19/2009
Arsenic	1.4J	µg/L	0.93	5	M Pattanayek	11/19/2009
Barium	32	µg/L	2.5	5	M Pattanayek	11/19/2009
Beryllium	U	µg/L	0.11	1	M Pattanayek	11/19/2009
Cadmium	U	µg/L	0.41	1	M Pattanayek	11/19/2009
Chromium	U	µg/L	2.0	5	M Pattanayek	11/19/2009
Cobalt	0.31J	µg/L	0.04	1	M Pattanayek	11/19/2009
Copper	0.41J	µg/L	0.38	1	M Pattanayek	11/19/2009
Lead	0.44J	µg/L	0.10	1	M Pattanayek	11/19/2009
Manganese	61	µg/L	0.42	1	M Pattanayek	11/19/2009
Nickel	1.2	µg/L	0.25	1	M Pattanayek	11/19/2009
Selenium	U	µg/L	1.3	5	M Pattanayek	11/19/2009
Silver	U	µg/L	0.03	0.25	M Pattanayek	11/19/2009
Thallium	0.06J	µg/L	0.03	1	M Pattanayek	11/19/2009
Vanadium	U	µg/L	3.4	5	M Pattanayek	11/19/2009
Zinc	4.3J	µg/L	1.9	5	M Pattanayek	11/19/2009

Lab-Sample Number: K00003121005
Project Name: TVA-Ash Spill
Sample Description: Emory River mile 1.7
Sampler Project Name: TVA Ash Spill
Project Site No.: 3
Station No.: EMORY001.7RO
Date/Time Collected: 11/17/2009 10:00
Sampler's Name: Geoff Klein
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date: 11/27/2009
Date/Time Received: 11/17/2009 13:45
Received By: Ken Hitchman

Field Determinations
pH: 7.47 pH Units
Chlorine, residual:
Conductivity: 111 uMHO
Temperature: 12.50
Dissolved Oxygen: 11.16 mg/L
Other:
Flow: CFS

TEST: Mercury		METHOD: EPA 245.1				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Mercury	U	µg/L	0.029	0.2	A Bass	11/24/2009

J - Estimated value between MDL and MQL
 MDL - Method Detection Limit
 MQL - Method Quantitation Limit
 U - Undetected

Lab-Sample Number: K00003121006
Project Name: TVA-Ash Spill
Sample Description: Emory River mile 0.1
Sampler Project Name: TVA Ash Spill
Project Site No.: 4
Station No.: EMORY000.1RO
Date/Time Collected: 11/17/2009 10:22
Sampler's Name: Geoff Klein
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date: 11/27/2009
Date/Time Received: 11/17/2009 13:45
Received By: Ken Hitchman

Field Determinations
pH: 7.68 pH Units
Chlorine, residual:
Conductivity: 233 uMHO
Temperature: 14.02
Dissolved Oxygen: 9.67 mg/L
Other:
Flow: CFS

TEST: Digestion Metals			METHOD: EPA 200.2			
ANALYTE	RESULT	UNITS	MDL	ML	ANALYZED BY:	DATE
Digestion Metals	11/19/2009				A Wilson	11/19/2009

TEST: ICP			METHOD: EPA 200.7			
ANALYTE	RESULT	UNITS	MDL	ML	ANALYZED BY:	DATE
Iron	210	µg/L	2.9	10	A Wilson	11/19/2009

TEST: ICP-MS			METHOD: EPA 200.8			
ANALYTE	RESULT	UNITS	MDL	ML	ANALYZED BY:	DATE
Aluminum	150	µg/L	6.4	10	M Pattanayek	11/19/2009
Antimony	U	µg/L	0.33	1	M Pattanayek	11/19/2009
Arsenic	U	µg/L	0.93	5	M Pattanayek	11/19/2009
Barium	32	µg/L	2.5	5	M Pattanayek	11/19/2009
Beryllium	U	µg/L	0.11	1	M Pattanayek	11/19/2009
Cadmium	U	µg/L	0.41	1	M Pattanayek	11/19/2009
Chromium	U	µg/L	2.0	5	M Pattanayek	11/19/2009
Cobalt	0.20J	µg/L	0.04	1	M Pattanayek	11/19/2009
Copper	U	µg/L	0.38	1	M Pattanayek	11/19/2009
Lead	0.24J	µg/L	0.10	1	M Pattanayek	11/19/2009
Manganese	32	µg/L	0.42	1	M Pattanayek	11/19/2009
Nickel	1.1	µg/L	0.25	1	M Pattanayek	11/19/2009
Selenium	U	µg/L	1.3	5	M Pattanayek	11/19/2009
Silver	U	µg/L	0.03	0.25	M Pattanayek	11/19/2009
Thallium	0.04J	µg/L	0.03	1	M Pattanayek	11/19/2009
Vanadium	U	µg/L	3.4	5	M Pattanayek	11/19/2009
Zinc	3.0J	µg/L	1.9	5	M Pattanayek	11/19/2009

Lab-Sample Number: K00003121006
Project Name: TVA-Ash Spill
Sample Description: Emory River mile 0.1
Sampler Project Name: TVA Ash Spill
Project Site No.: 4
Station No.: EMORY000.1RO
Date/Time Collected: 11/17/2009 10:22
Sampler's Name: Geoff Klein
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date: 11/27/2009
Date/Time Received: 11/17/2009 13:45
Received By: Ken Hitchman

Field Determinations
pH: 7.68 pH Units
Chlorine, residual:
Conductivity: 233 uMHO
Temperature: 14.02
Dissolved Oxygen: 9.67 mg/L
Other:
Flow: CFS

TEST: Mercury		METHOD: EPA 245.1				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Mercury	U	µg/L	0.029	0.2	A Bass	11/24/2009

J - Estimated value between MDL and MQL

MDL - Method Detection Limit

MQL - Method Quantitation Limit

U - Undetected

Lab-Sample Number: K00003121007
Project Name: TVA-Ash Spill
Sample Description: Clinch River mile 2.3
Sampler Project Name: TVA Ash Spill
Project Site No.: 5
Station No.: CLINC002.3RO
Date/Time Collected: 11/17/2009 10:50
Sampler's Name: Geoff Klein
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date: 11/27/2009
Date/Time Received: 11/17/2009 13:45
Received By: Ken Hitchman

Field Determinations
pH: 7.55 pH Units
Chlorine, residual:
Conductivity: 242 uMHO
Temperature: 14.17
Dissolved Oxygen: 9.97 mg/L
Other:
Flow: CFS

TEST: Digestion Metals		METHOD: EPA 200.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Digestion Metals	11/19/2009				A Wilson	11/19/2009

TEST: ICP		METHOD: EPA 200.7				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Iron	150	µg/L	2.9	10	A Wilson	11/19/2009

TEST: ICP-MS		METHOD: EPA 200.8				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Aluminum	150	µg/L	6.4	10	M Pattanayek	11/19/2009
Antimony	U	µg/L	0.33	1	M Pattanayek	11/19/2009
Arsenic	U	µg/L	0.93	5	M Pattanayek	11/19/2009
Barium	39	µg/L	2.5	5	M Pattanayek	11/19/2009
Beryllium	U	µg/L	0.11	1	M Pattanayek	11/19/2009
Cadmium	U	µg/L	0.41	1	M Pattanayek	11/19/2009
Chromium	U	µg/L	2.0	5	M Pattanayek	11/19/2009
Cobalt	0.21J	µg/L	0.04	1	M Pattanayek	11/19/2009
Copper	U	µg/L	0.38	1	M Pattanayek	11/19/2009
Lead	0.23J	µg/L	0.10	1	M Pattanayek	11/19/2009
Manganese	37	µg/L	0.42	1	M Pattanayek	11/19/2009
Nickel	1.3	µg/L	0.25	1	M Pattanayek	11/19/2009
Selenium	U	µg/L	1.3	5	M Pattanayek	11/19/2009
Silver	U	µg/L	0.03	0.25	M Pattanayek	11/19/2009
Thallium	0.04J	µg/L	0.03	1	M Pattanayek	11/19/2009
Vanadium	U	µg/L	3.4	5	M Pattanayek	11/19/2009
Zinc	3.2J	µg/L	1.9	5	M Pattanayek	11/19/2009

Lab-Sample Number: K00003121007
Project Name: TVA-Ash Spill
Sample Description: Clinch River mile 2.3
Sampler Project Name: TVA Ash Spill
Project Site No.: 5
Station No.: CLINC002.3RO
Date/Time Collected: 11/17/2009 10:50
Sampler's Name: Geoff Klein
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date: 11/27/2009
Date/Time Received: 11/17/2009 13:45
Received By: Ken Hitchman

Field Determinations

pH: 7.55 pH Units
Chlorine, residual:
Conductivity: 242 uMHO
Temperature: 14.17
Dissolved Oxygen: 9.97 mg/L
Other:
Flow: CFS

TEST: Mercury		METHOD: EPA 245.1				
ANALYTE	RESULT	UNITS	MDL	MLQ	ANALYZED BY:	DATE
Mercury	U	µg/L	0.029	0.2	A Bass	11/24/2009

J - Estimated value between MDL and MQL
 MDL - Method Detection Limit
 MQL - Method Quantitation Limit
 U - Undetected

Lab-Sample Number: K00003121008
Project Name: TVA-Ash Spill
Sample Description: Clinch River TVA Discharge Point
Sampler Project Name: TVA Ash Spill
Project Site No.: 5A
Station No.: KingAshOutF2
Date/Time Collected: 11/17/2009 11:05
Sampler's Name: Geoff Klein
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date: 11/27/2009
Date/Time Received: 11/17/2009 13:45
Received By: Ken Hitchman

Field Determinations
pH: 7.77 pH Units
Chlorine, residual:
Conductivity: 78 uMHO
Temperature: 11.91
Dissolved Oxygen: 10.63 mg/L
Other:
Flow: CFS

TEST: Digestion Metals			METHOD: EPA 200.2			
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Digestion Metals	11/19/2009				A Wilson	11/19/2009

TEST: ICP			METHOD: EPA 200.7			
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Iron	300	µg/L	2.9	10	A Wilson	11/19/2009

TEST: ICP-MS			METHOD: EPA 200.8			
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Aluminum	280	µg/L	6.4	10	M Pattanayek	11/19/2009
Antimony	0.55J	µg/L	0.33	1	M Pattanayek	11/19/2009
Arsenic	2.0J	µg/L	0.93	5	M Pattanayek	11/19/2009
Barium	38	µg/L	2.5	5	M Pattanayek	11/19/2009
Beryllium	U	µg/L	0.11	1	M Pattanayek	11/19/2009
Cadmium	U	µg/L	0.41	1	M Pattanayek	11/19/2009
Chromium	U	µg/L	2.0	5	M Pattanayek	11/19/2009
Cobalt	0.32J	µg/L	0.04	1	M Pattanayek	11/19/2009
Copper	1.4	µg/L	0.38	1	M Pattanayek	11/19/2009
Lead	0.36J	µg/L	0.10	1	M Pattanayek	11/19/2009
Manganese	110	µg/L	0.42	1	M Pattanayek	11/19/2009
Nickel	1.2	µg/L	0.25	1	M Pattanayek	11/19/2009
Selenium	U	µg/L	1.3	5	M Pattanayek	11/19/2009
Silver	U	µg/L	0.03	0.25	M Pattanayek	11/19/2009
Thallium	0.09J	µg/L	0.03	1	M Pattanayek	11/19/2009
Vanadium	U	µg/L	3.4	5	M Pattanayek	11/19/2009
Zinc	4.4J	µg/L	1.9	5	M Pattanayek	11/19/2009

Lab-Sample Number: K00003121008
Project Name: TVA-Ash Spill
Sample Description: Clinch River TVA Discharge Point
Sampler Project Name: TVA Ash Spill
Project Site No.: 5A
Station No.: KingAshOutF2
Date/Time Collected: 11/17/2009 11:05
Sampler's Name: Geoff Klein
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date: 11/27/2009
Date/Time Received: 11/17/2009 13:45
Received By: Ken Hitchman

Field Determinations
pH: 7.77 pH Units
Chlorine, residual:
Conductivity: 78 uMHO
Temperature: 11.91
Dissolved Oxygen: 10.63 mg/L
Other:
Flow: CFS

TEST: Mercury		METHOD: EPA 245.1				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Mercury	U	µg/L	0.029	0.2	A Bass	11/24/2009

J - Estimated value between MDL and MQL

MDL - Method Detection Limit

MQL - Method Quantitation Limit

U - Undetected

Lab-Sample Number:	K00003121009	Field Determinations	
Project Name:	TVA-Ash Spill	pH:	7.52 pH Units
Sample Description:	Clinch River mile 4.5 near Sugar Grove Valley R	Chlorine, residual:	
Sampler Project Name:	TVA Ash Spill	Conductivity:	253 uMHO
Project Site No.:	6	Temperature:	14.29
Station No.:	CLINC004.5RO	Dissolved Oxygen:	9.73 mg/L
Date/Time Collected:	11/17/2009 10:30	Other:	
Sampler's Name:	Geoff Klein	Flow:	CFS
County:	ROANE - 73		
Sample Matrix:	Water		
EFO:	Knoxville		
Sampling Agency:	TDEC-WPC		
Billing Code:	327.34-20		
Send Report To:	TDEC-WPC		
Agency Invoiced:	TDEC-WPC		
Priority Date:	11/27/2009		
Date/Time Received:	11/17/2009 13:45		
Received By:	Ken Hitchman		

TEST: Digestion Metals		METHOD: EPA 200.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Digestion Metals	11/19/2009				A Wilson	11/19/2009

TEST: ICP		METHOD: EPA 200.7				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Iron	130	µg/L	2.9	10	A Wilson	11/19/2009

TEST: ICP-MS		METHOD: EPA 200.8				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Aluminum	100	µg/L	6.4	10	M Pattanayek	11/19/2009
Antimony	U	µg/L	0.33	1	M Pattanayek	11/19/2009
Arsenic	U	µg/L	0.93	5	M Pattanayek	11/19/2009
Barium	34	µg/L	2.5	5	M Pattanayek	11/19/2009
Beryllium	U	µg/L	0.11	1	M Pattanayek	11/19/2009
Cadmium	U	µg/L	0.41	1	M Pattanayek	11/19/2009
Chromium	U	µg/L	2.0	5	M Pattanayek	11/19/2009
Cobalt	0.14J	µg/L	0.04	1	M Pattanayek	11/19/2009
Copper	U	µg/L	0.38	1	M Pattanayek	11/19/2009
Lead	0.16J	µg/L	0.10	1	M Pattanayek	11/19/2009
Manganese	31	µg/L	0.42	1	M Pattanayek	11/19/2009
Nickel	1.0	µg/L	0.25	1	M Pattanayek	11/19/2009
Selenium	U	µg/L	1.3	5	M Pattanayek	11/19/2009
Silver	U	µg/L	0.03	0.25	M Pattanayek	11/19/2009
Thallium	U	µg/L	0.03	1	M Pattanayek	11/19/2009
Vanadium	U	µg/L	3.4	5	M Pattanayek	11/19/2009
Zinc	2.1J	µg/L	1.9	5	M Pattanayek	11/19/2009

Lab-Sample Number:	K00003121009	Field Determinations	
Project Name:	TVA-Ash Spill	pH:	7.52 pH Units
Sample Description:	Clinch River mile 4.5 near Sugar Grove Valley R	Chlorine, residual:	
Sampler Project Name:	TVA Ash Spill	Conductivity:	253 uMHO
Project Site No.:	6	Temperature:	14.29
Station No.:	CLINC004.5RO	Dissolved Oxygen:	9.73 mg/L
Date/Time Collected:	11/17/2009 10:30	Other:	
Sampler's Name:	Geoff Klein	Flow:	CFS
County:	ROANE - 73		
Sample Matrix:	Water		
EFO:	Knoxville		
Sampling Agency:	TDEC-WPC		
Billing Code:	327.34-20		
Send Report To:	TDEC-WPC		
Agency Invoiced:	TDEC-WPC		
Priority Date:	11/27/2009		
Date/Time Received:	11/17/2009 13:45		
Received By:	Ken Hitchman		

TEST: Mercury		METHOD: EPA 245.1				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Mercury	U	µg/L	0.029	0.2	A Bass	11/24/2009

J - Estimated value between MDL and MQL
 MDL - Method Detection Limit
 MQL - Method Quantitation Limit
 U - Undetected